



SEQUENCE LISTING

RECEIVED

FEB 07 2002

TECH CENTER 1600/2900

<110> DANA-FARBER CANCER INSTITUTE, INC.  
MARASCO, Wayne  
MHASHILKAR, Abner

<120> INTRABODY-MEDIATED CONTROL OF IMMUNE REACTIONS

<130> 47577 C

<140> PCT/US98/19563

<141> 1998-09-18

<150> 60/059,339

<151> 1997-09-19

<160> 56

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crkggt 66

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cagtctcca 69

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Gly Ala Ala Leu Thr Ile Leu Val  
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Gly Ala Ala Leu Thr Leu Leu Gly  
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Gly Asn Ala Ala Ala Ala Lys Lys  
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Gly Asn Glu Ala Ser Tyr Pro Leu  
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INS  
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E1



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1 5 10 15

48

gtc ctg tcc cag gtg caa ctg cag cag tca ggg gct gag ctg gca aga  
Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg  
20 25 30

96

cct ggg gct tca gtg aag ttg tcc tgc aag gct tct ggc tac acc ttt  
Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
35 40 45

144

act agt cac tgg atg cag tgg gtg aga cag agg cct gga cag ggt ctg  
Thr Ser His Trp Met Gln Trp Val Arg Gln Arg Pro Gly Gln Gly Leu  
50 55 60

192

gaa tgg att ggg act att tat cct gga gat ggt gat act agg tac act  
Glu Trp Ile Gly Thr Ile Tyr Pro Gly Asp Gly Asp Thr Arg Tyr Thr  
65 70 75 80

240

cag aat ttc aag ggc aag gcc aca ttg act gca gat aag tcc tcc acc  
Gln Asn Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr  
85 90 95

288

aca gcc tac tta cac ctc agc agc ttg tca tct gaa gac tct gcg gtc  
Thr Ala Tyr Leu His Leu Ser Ser Leu Ser Ser Glu Asp Ser Ala Val  
100 105 110

336

INS  
91

E1

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|---|-----|
| tat tat tgt gca aga gat gag att act acg gtt gta ccc cgg ggg ttt | 384 |
| Tyr Tyr Cys Ala Arg Asp Glu Ile Thr Thr Val Val Pro Arg Gly Phe |     |
| 115 120 125   |     |
| gct tac tgg ggc caa ggg acc tcg gtc acc gtc tcc tca ggt ggc ggt | 432 |
| Ala Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Gly Gly Gly |     |
| 130 135 140   |     |
| ggc tcg ggc ggt ggt ggc tcg ggt ggc ggc gga tct gag ctc gtg ctc | 480 |
| Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Leu |     |
| 145 150 155 160   |     |
| acc caa acc cca acc tcc ctg gct ncc tct ctg gga gac aga gtc acc | 528 |
| Thr Gln Thr Pro Thr Ser Leu Ala Xaa Ser Leu Gly Asp Arg Val Thr |     |
| 165 170 175   |     |
| atc agt tgc agg gca agt cag gac att agc agt tat tta aac tgg tat | 576 |
| Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Ser Tyr Leu Asn Trp Tyr |     |
| 180 185 190   |     |
| cag cag aaa cca gat gga act att aaa ctc ctg atc tac tac aca tca | 624 |
| Gln Gln Lys Pro Asp Gly Thr Ile Lys Leu Leu Ile Tyr Tyr Thr Ser |     |
| 195 200 205   |     |
| aga tta tat tca gga gtc cca cca agg ttc agt ggc agt ggg gct gga | 672 |
| Arg Leu Tyr Ser Gly Val Pro Pro Arg Phe Ser Gly Ser Gly Ala Gly |     |
| 210 215 220   |     |
| aca gat tat tct ctc acc atc agc aac ctg gag caa gaa gat ttt gcc | 720 |
| Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln Glu Asp Phe Ala |     |
| 225 230 235 240   |     |
| act tac ttt tgc caa cag ggt aat gtg att ccg tac acg ttc gga ggg | 768 |
| Thr Tyr Phe Cys Gln Gln Gly Asn Val Ile Pro Tyr Thr Phe Gly Gly |     |
| 245 250 255   |     |
| ggg acc aag ctg gaa atg aaa cgg gct gat gct gca cca act gta agc | 816 |
| Gly Thr Lys Leu Glu Met Lys Arg Ala Asp Ala Ala Pro Thr Val Ser |     |
| 260 265 270   |     |
| gaa aag gac gag ctg taa taa                                     | 837 |
| Glu Lys Asp Glu Leu   |     |
| 275   |     |

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Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
35 40 45  
Thr Ser His Trp Met Gln Trp Val Arg Gln Arg Pro Gly Gln Gly Leu  
50 55 60  
Glu Trp Ile Gly Thr Ile Tyr Pro Gly Asp Gly Asp Thr Arg Tyr Thr  
65 70 75 80  
Gln Asn Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr  
85 90 95  
Thr Ala Tyr Leu His Leu Ser Ser Leu Ser Ser Glu Asp Ser Ala Val  
100 105 110  
Tyr Tyr Cys Ala Arg Asp Glu Ile Thr Thr Val Val Pro Arg Gly Phe  
115 120 125  
Ala Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Gly Gly Gly  
130 135 140  
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Leu  
145 150 155 160  
Thr Gln Thr Pro Thr Ser Leu Ala Xaa Ser Leu Gly Asp Arg Val Thr  
165 170 175  
Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Ser Tyr Leu Asn Trp Tyr  
180 185 190  
Gln Gln Lys Pro Asp Gly Thr Ile Lys Leu Leu Ile Tyr Tyr Thr Ser  
195 200 205  
Arg Leu Tyr Ser Gly Val Pro Pro Arg Phe Ser Gly Ser Gly Ala Gly  
210 215 220  
Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln Glu Asp Phe Ala  
225 230 235 240  
Thr Tyr Phe Cys Gln Gln Gly Asn Val Ile Pro Tyr Thr Phe Gly Gly  
245 250 255  
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Glu Lys Asp Glu Leu  
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gtc ctg tcc cag gtg caa ctg cag cag tct ggg gct gag ctg aca aga 96  
Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Thr Arg  
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cct ggg gct tca gtg aag ttg tcc tgc aag gct tct ggc tac acc ttt 144  
Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
35 40 45

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 Thr Ser His Trp Met Gln Trp Val Arg Gln Arg Pro Gly Gln Gly Leu  
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 Glu Trp Ile Gly Thr Ile Tyr Pro Gly Asp Gly Asp Thr Arg Tyr Thr  
 65 70 75 80

cag aat ttc aag ggc aag gcc aca ttg act gca gat aag tcc tcc acc 288  
 Gln Asn Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr  
 85 90 95

aca gcc tac tta cac ctg agc agc ttg tca tct gaa gac tct gcg gtc 336  
 Thr Ala Tyr Leu His Leu Ser Ser Leu Ser Ser Glu Asp Ser Ala Val  
 100 105 110

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 Tyr Tyr Cys Ala Arg Asp Glu Ile Thr Thr Val Val Pro Arg Gly Phe  
 115 120 125

gct tac tgg ggc caa ggg acc ttg gtc acc gtc tcc tca ggt ggc ggt 432  
 Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly  
 130 135 140

ggc tcg ggc ggt ggt ggg tcg ggt ggc ggc gga tct gag ctg gtg ctg 480  
 Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Leu  
 145 150 155 160

acc cag tct cca tcc agt ctg tct gca tcc ctt gga gac aca att acc 528  
 Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly Asp Thr Ile Thr  
 165 170 175

atc act tgc cat gcc agt cag aac att aat gtt tgg tta agt tgg tac 576  
 Ile Thr Cys His Ala Ser Gln Asn Ile Asn Val Trp Leu Ser Trp Tyr  
 180 185 190

cag cag aaa cca gga aat att cct caa cta ttg atc tat aag gct tcc 624  
 Gln Gln Lys Pro Gly Asn Ile Pro Gln Leu Leu Ile Tyr Lys Ala Ser  
 195 200 205

aac ttg cac aca ggc gtc cca tca agg ttt agt ggc cgt gga tct gga 672  
 Asn Leu His Thr Gly Val Pro Ser Arg Phe Ser Gly Arg Gly Ser Gly  
 210 215 220

aca ggt ttc aca tta acc atc agc agc ctg cag cct gaa gac att ggc 720  
 Thr Gly Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Gly  
 225 230 235 240

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 Thr Tyr Tyr Cys Gln Gln Gly Gln Ser Tyr Pro Leu Thr Phe Gly Gly  
 245 250 255

ggc acc aag ctg gaa atc aaa cgg gct gat gct gca cca act gta agc 816  
 Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser  
 260 265 270

INS  
91

E1

gaa aag gac gag ctg taa taa  
Glu Lys Asp Glu Leu \* \*  
275

837

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Met Glu His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp  
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20 25 30  
Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
35 40 45  
Thr Ser His Trp Met Gln Trp Val Arg Gln Arg Pro Gly Gln Gly Leu  
50 55 60  
Glu Trp Ile Gly Thr Ile Tyr Pro Gly Asp Gly Asp Thr Arg Tyr Thr  
65 70 75 80  
Gln Asn Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr  
85 90 95  
Thr Ala Tyr Leu His Leu Ser Ser Leu Ser Ser Glu Asp Ser Ala Val  
100 105  
Tyr Tyr Cys Ala Arg Asp Glu Ile Thr Thr Val Val Pro Arg Gly Phe  
115 120 125  
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly  
130 135 140  
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Leu  
145 150 155 160  
Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly Asp Thr Ile Thr  
165 170 175  
Ile Thr Cys His Ala Ser Gln Asn Ile Asn Val Trp Leu Ser Trp Tyr  
180 185 190  
Gln Gln Lys Pro Gly Asn Ile Pro Gln Leu Leu Ile Tyr Lys Ala Ser  
195 200 205  
Asn Leu His Thr Gly Val Pro Ser Arg Phe Ser Gly Arg Gly Ser Gly  
210 215 220  
Thr Gly Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Gly  
225 230 235 240  
Thr Tyr Tyr Cys Gln Gln Gly Gln Ser Tyr Pro Leu Thr Phe Gly Gly  
245 250 255  
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser  
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Glu Lys Asp Glu Leu

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Arg Lys Lys Arg  
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